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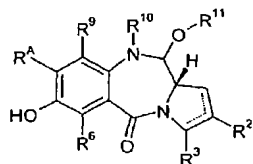
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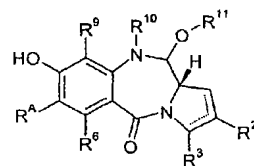
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5 January 2006For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.(54) Title: PYRROLOBENZODIAZEPINES AS KEY INTERMEDIATES IN THE SYNTHESIS OF DIMERIC CYTOTOXIC
PYRROLOBENZODIAZEPINES

(Ia)



(Ib)

(57) Abstract: Compounds and a method of synthesis of compounds of formula (Ia) or (Ib): and salts, solvates, and chemically
protected forms thereof, wherein the dotted lines indicate the optional presence of a double bond between C1 and C2 or C2 and
C3; R² and R³ are independently selected from -H, =O, =CH₂, -CN, -R, OR, halo, =CH-R, O-SO₂-R, CO₂R and COR; R¹⁰ is a
carbamate-based nitrogen protecting group; and R¹¹ is an oxygen protecting group.

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/GB2005/000770

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07D519/00 C07D487/04 A61K31/55 A61P35/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07D A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/12508 A (THE UNIVERSITY OF PORTSMOUTH HIGHER EDUCATION CORPORATION; THURSTON, D) 9 March 2000 (2000-03-09) cited in the application	8-25
A	cpds. 79,80,89,90,217,218 the whole document	1-7, 26-32
X	WO 00/12507 A (THE UNIVERSITY OF PORTSMOUTH HIGHER EDUCATION CORPORATION; THURSTON, D) 9 March 2000 (2000-03-09) Cpd. 34	8-25
A	the whole document	1-7, 26-32
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

18 August 2005

Date of mailing of the international search report

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Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2005/000770

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>GREGSON S J ET AL: "Linker Length Modulates DNA Cross-Linking Reactivity and Cytotoxic Potency of C8/C8' Ether-Linked C2-exo-Unsaturated Pyrrolo'2,1-c!'1,4!benzodiazepine (PBD) Dimers"</p> <p>JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 47, 30 January 2004 (2004-01-30), pages 1161-1174, XP002316295 ISSN: 0022-2623 Cpds. 3a-3d, 4a-4b, 21a,21b</p>	8-25
X	<p>KAMAL A ET AL: "Synthesis and DNA-binding affinity of A-C8/C-C2 alkoxyamido-linked pyrrolo'2,1-c!'1,4!benzodiazepine dimers"</p> <p>BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, OXFORD, GB, vol. 13, no. 22, 14 October 2003 (2003-10-14), pages 3955-3958, XP002329064 ISSN: 0960-894X Cpd. DSB-120</p>	8-25
A	<p>US 2003/187253 A1 (WANG JEH-JENG) 2 October 2003 (2003-10-02) the whole document</p>	1-32

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2005/000770

Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☒ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-7,8(part);10;11-32(part)

Compounds of formula IIIa; intermediates (Ia), compositions, methods, uses thereof; process for their preparation

2. claims: 1-7,8(part);9;11-32(part)

Compounds of formula IIIb, intermediates (Ib), compositions, methods, uses thereof; process for their preparation

INTERNATIONAL SEARCH REPORT

Information on patent family members

International No	Publication No
PCT/GB2005/000770	

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